## TITLE 10, CHAPTER 5, SUBCHAPTER 3, ARTICLE 17

### ACTUARIAL OPINION AND MEMORANDUM REGULATION

## §2580.1. Purpose.

The purpose of this regulation is to prescribe:

- (a) Guidelines and standards Requirements for statements of actuarial opinion which that are to be submitted in accordance with Subsection 10489.15(b) of the Insurance Code, and for memoranda in support thereof;
- (b) Guidelines and standards for statement of actuarial opinion which are to be submitted when a company is exempt from Subsection 10489.15(b) of the Insurance Code; and
  - (b) (e)Rules applicable to the appointment of an appointed actuary; and-
  - (c) Guidance as to the meaning of "adequacy of reserves."

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code.

## §2580.2. Scope.

This regulation shall apply to all life insurance companies and fraternal benefit societies doing business in this State and to all life insurance companies and fraternal benefit societies which that are authorized to reinsure life insurance, annuities or disability accident and health insurance business in this State. This regulation shall be applied in a manner that allows the Appointed Actuary to utilize his or her professional judgment in performing the Asset Adequacy Analysis and developing the Actuarial Opinion and supporting memoranda, consistent with relevant actuarial standards of practice. However, the Commissioner shall have the authority to specify specific methods of actuarial analysis and actuarial assumptions when, in the Commissioner's judgment, these specifications are necessary for an acceptable opinion to be rendered relating to the adequacy of reserves and related items.

This regulation shall be applicable to all annual statements filed with the office of the Commissioner after the effective date of this regulation. Except with respect to companies which are exempted pursuant to Section 2580.5 of this regulation, a A statement of opinion on the adequacy of the reserves and related actuarial items based on an Aasset Aadequacy Analysis in accordance with Section 2580.75 of this regulation, and a memorandum in support thereof in accordance with Section 2580.86 of this regulation, shall be required each year. Any company so exempted must file a statement of actuarial opinion pursuant to Section 2580.6 of this regulation.

Notwithstanding the foregoing, the Commissioner may require any company otherwise exempt pursuant to this regulation to submit a statement of actuarial opinion and to prepare a memorandum in support thereof in accordance with Sections 2580.7 and 2580.8 of this regulation if, in the opinion of the Commissioner, an asset adequacy analysis is necessary with respect to the company. An asset adequacy analysis will be deemed necessary of an otherwise exempt company if it is in financially hazardous condition, as determined by the Commissioner's standard surveys.

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code.

## §2580.3. Definitions.

- (a) Actuarial Opinion
- "Actuarial Opinion" means:
- (1)\_With respect to Section 2580.7, 2580.8, or 2580.9, the opinion of an Appointed Actuary regarding the adequacy of the reserves and related actuarial items based on an Aasset Aadequacy Analysis test in accordance with Section 2580.75 of this regulation and with applicable presently accepted Actuarial Standards of Practice.(standards in effect on the date of the Statement for which the opinion is being rendered):
- (2) With respect to Section 2580.6, the opinion of an Appointed Actuary regarding the calculation of reserves and related items, in accordance with Section 2580.6 of this regulation and with those presently accepted Actuarial Standards (standards in effect on the date of the Statement for which—the—opinion—is being rendered); which specifically relate to this opinion.
  - (b) Actuarial Standards Board
- "Actuarial Standards Board" is the board established by the American Academy of Actuaries to develop and promulgate standards of actuarial practice.
  - (c) Annual Statement
- "Annual Statement" means that statement required by Section 900 of the Insurance Code to be filed by the <u>Ceompany</u> with the office of the Commissioner annually.
  - (d) Appointed Actuary
- "Appointed Actuary" means any individual who is appointed or retained in accordance with the requirements set forth in Subsection 2580.4(c) of this regulation to provide the <u>Aactuarial Oopinion</u> and supporting memorandum as required by Section 10489.15 of the Insurance Code.
  - (e) Asset Adequacy Analysis
- "Asset Adequacy Analysis" means an analysis that meets the standards and other requirements referred to in Subsection 2580.4(d) of this regulation. It may take many forms, including, but not limited to, cash flow testing, sensitivity testing or applications of risk theory.
  - (f) Commissioner
  - "Commissioner" means the Insurance Commissioner of the State of California.
  - (g) Company
- "Company" means a life insurance company, fraternal benefit society or reinsurer subject to the provisions of this regulation.
  - (h) Non-Investment Grade Bonds
- "Non-Investment Grade Bonds" are those designated as classes 3, 4, 5 or 6 by the NAIC Securities Valuation Office or any subsequently designated classes corresponding to these classes.
  - (i) Qualified Actuary
- (h) "Qualified Actuary" means any individual who meets the requirements set forth in Subsection 2580.4(b) of this regulation.

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code.

## §2580.4. General Requirements.

- (a) Submission of Statement of Actuarial Opinion.
- (1) There is to be included on or attached to Page 1 of the <u>Aannual Satatement</u> for each year beginning with the year in which this regulation becomes effective the statement of an <u>Aappointed Aactuary</u>, entitled "Statement of Actuarial Opinion," setting forth an opinion relating to reserves and related actuarial items held in support of policies and contracts, in accordance with Section 2580.75 of this regulation; provided, however, that any company exempted pursuant to Section 2580.5 of this regulation from submitting a statement of actuarial opinion in accordance with Section 2580.7 of this

regulation shall include on or attach to Page 1 of the annual statement a statement of actuarial opinion rendered by an appointed actuary in accordance with Section 2580.6 of this regulation.

- (2) If in the previous year a company provided a statement of actuarial opinion in accordance with Section 2580.6 of this regulation, and in the current year fails the exemption criteria of Subsection 2580.5(c)(1), 2580.5(c)(2) or 2580.5(c)(5) to again provide an actuarial opinion in accordance with Section 2580.6, the statement of actuarial opinion in accordance with Section 2580.7 shall not be required until August 1 following the date of the annual statement. In this instance, the company shall provide a statement of actuarial opinion in accordance with Section 2580.6 with appropriate qualification noting the intent to subsequently provide a statement of actuarial opinion in accordance with Section 2580.7.
- (3) In the case of a statement of actuarial opinion required to be submitted by a foreign or alien company the Commissioner may accept the statement of actuarial opinion filed by such company with the insurance supervisory regulator of another state if the Commissioner determines that such opinion reasonably meets the requirements applicable to a company domiciled in this State.
- (4)(2) Upon written request by the <u>Ceompany</u>, the <u>Ceommissioner may grant an extension of the date for submission of the <u>S</u>statement of <u>A</u>actuarial <u>O</u>epinion.</u>
  - (2)(b) A "qualified actuary" is an individual who:
  - (1) Is a member in good standing of the American Academy of Actuaries; and
- (2) Is qualified to sign statements of actuarial opinion for life and health insurance company annual statements in accordance with the American Academy of Actuaries qualification standards for actuaries signing such statements; and
  - (3) Is familiar with the valuation requirements applicable to life and health insurance companies;
- (3)(4) Has not been found by the Commissioner (or if so found has subsequently been reinstated as a qualified actuary), following appropriate notice and hearing to have:
- (A) Violated any provision of, or any obligation imposed by, the Insurance Law or other law in the course of his or her dealings as a qualified actuary; or
  - (B) Been found guilty of fraudulent or dishonest practices; or
- (C)\_Demonstrated his or her incompetency, lack of cooperation, or untrustworthiness to act as a qualified actuary; or
- (D) Submitted to the Commissioner during the past five years, pursuant to this regulation, an actuarial opinion or memorandum that the Commissioner rejected because it did not meet the provisions of this regulation including standards set by the Actuarial Standards Board; or
- (E) Resigned or been removed as an actuary within the past five years as a result of acts or omissions indicated in any adverse report on examination or as a result of failure to adhere to generally acceptable actuarial standards; and
- (4)—(5) Hhas not failed to notify the Commissioner of any action taken by any  $\underline{c}$ Commissioner of any other state similar to that under Paragraph ( $\underline{43}$ ) above.

## (c) Appointed Actuary

An "appointed actuary" is a Qqualified Aactuary who is appointed or retained to prepare the Statement of Actuarial Opinion required by this regulation; either directly by or by the authority of the board of directors through an executive officer of the Ceompany who is not said Qualified Actuary. Within sixty calendar days of the effective date of this regulation, tThe Company shall mail the Commissioner timely notice of the name, title (and, in the case of a consulting actuary, the name of the firm) and manner of appointment or retention of each person appointed or retained by the Ceompany as an appointed actuary and shall state in such the notice that such person meets the requirements set forth in Subsection 2580.4(b). Once notice is furnished, no further notice is required with respect to this person, provided that the Ceompany shall inform the Commissioner by written notice postmarked or received within sixty calendar days of the event, in the event the actuary ceases to be appointed or retained as an appointed actuary or to meet the requirement set forth in Subsection 2580.4(b). If any person appointed or

retained as an appointed actuary replaces a previously appointed actuary, the notice shall so state and give the reasons for replacement.

(d) Standards for Asset Adequacy Analysis.

The asset adequacy analysis required by this regulation:

- (1) Shall conform to the Standards of Practice as promulgated from time to time by the Actuarial Standards Board and on any additional standards under this regulation, which standards are to form the basis of the statement of Aactuarial Oopinion in accordance with Section 2580.7 of this regulation; and
- (2) Shall be based on methods of analysis as are deemed appropriate for such purposes by the Actuarial Standards Board.
  - (e) Liabilities to be Covered.
- (1) Under the authority of Section 10489.15 of the Insurance Code, the statement of <u>Aactuarial Oopinion</u> shall apply to all in force business on the statement date, whether directly issued or assumed, regardless of when or where issued, namely, reserves of Exhibits 85, 96, and 107, and claim liabilities in Exhibit 118, Part 1 and any other policy or contract liabilities and equivalent items in the separate account statement or statements. Exhibits 85, 96, 107, and 118 are included in the chart attached to Paragraghsubsection 2580.75(b)(2).
- (2) If the <u>Aappointed Aactuary determines as the result of Aasset Aadequacy Aanalysis that a reserve should be held in addition to the aggregate reserve held by the <u>Ceompany and calculated in accordance with methods set forth in Division 2, Part 2, Chapter 5, Article 3A (Sections 10489.1, et seq.)2, 10489.3, 10489.4, 10489.5, 10489.6, 10489.7, 10489.8, 10489.9, and 10489.93 of the Insurance Code (the Standard Valuation Law), the <u>Ceompany shall establish such the</u> additional reserve.</u></u>
- (3) Additional reserves established under Paragraph (2) above and deemed not necessary in subsequent years may be released. Any amounts released must be disclosed in the <u>Aactuarial Oopinion</u> for the applicable year. The release of such reserves would not be deemed an adoption of a lower standard of valuation.

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code.

#### §2580.5. Required Opinions.

#### (a) General

In accordance with Section 10489.15(b) of the Insurance Code, every company doing business in this state shall annually submit the opinion of an appointed actuary as provided for by this regulation. The type of opinion submitted shall be determined by the provisions set forth in this Section 2580.5 and shall be in accordance with the applicable provisions in this regulation.

- (b) Company Categories
  - For purposes of this regulation, companies shall be classified as follows based on the admitted assets as of the end of the calendar year for which the actuarial opinion is applicable:
- (1) Category A shall consist of those companies whose admitted assets do not exceed \$20 million;
- (2) Category B shall consist of those companies whose admitted assets exceed \$20 million but do not exceed \$100 million;
- (3) Category C shall consist of those companies whose admitted assets exceed \$100 million but do not exceed \$500 million; and
- (4) Category D shall consist of those companies whose admitted assets exceed \$500 million.
- (c) Exemption Eligibility Tests
- (1) Any Category A company that, for any year beginning with the year in which this regulation becomes effective, meets all of the following criteria shall be eligible for exemption from submission of a statement of actuarial opinion in accordance with Section 2580.7 of this regulation for the year in which these criteria are met. The ratios in (A), (B) and (C) below shall be calculated based on amounts as of the end of the calendar year for which the actuarial opinion is applicable.

- (A) The ratio of the sum of capital and surplus to the sum of cash and invested assets is at least equal to .10.
- (B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is less than .30.
- (C) The ratio of the book value of the non-investment grade bonds to the sum of capital and surplus is less than .50
- (D) The Examiner Team for the National Association of Insurance Commissioners (NAIC) has not designated the company as a first priority company in either of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or a second priority company in both of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or the company has resolved the first or second priority status to the satisfaction of the commissioner of the state of domicile and the commissioner has so notified the chair of the NAIC Life and Health Actuarial Task Force and the NAIC staff and support office.
- (2) Any Category B company that, for any year beginning with the year in which this regulation becomes effective, meets all of the following criteria shall be eligible for exemption from submission of a statement of actuarial opinion in accordance with Section 2580.7 of this regulation for the year in which the criteria are met. The ratios in (A), (B) and (C) below shall be calculated based on amounts as of the end of the calendar year for which the actuarial opinion is applicable.
- (A) The ratio of the sum of capital and surplus to the sum of cash and invested assets is at least equal to .07.
- (B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is less than .40.
- (C) The ratio of the book value of the non-investment grade bonds to the sum of capital and surplus is less than .50.
- (D) The Examiner Team for the National Association of Insurance Commissioners (NAIC) has not designated the company as a first priority company in either of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or a second priority company in both of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or the company has resolved the first or second priority status to the satisfaction of the commissioner of the state of domicile and the commissioner has so notified the chair of the NAIC Life and Health Actuarial Task Force and the NAIC staff and support office.
- (3) Any Category A or Category B company that meets all of the criteria set forth in Paragraph (1) or (2) of this subsection, whichever is applicable, is exempted from submission of a statement of actuarial opinion in accordance with Section 2580.7 of this regulation unless the Commissioner specifically indicates to the company that the exemption is not to be taken.
- (4) Any Category A or Category B company that, for any year beginning with the year in which this regulation becomes effective, is not exempted under Paragraph (3) of this subsection shall be required to submit a statement of actuarial opinion in accordance with Section 2580.7 of this regulation for the year for which it is not exempt.
- (5) Any Category C company that, after submitting an opinion in accordance with Section 2580.7 of regulation, meets all of the following criteria shall not be required, unless required in accordance with Paragraph (6) below, to submit a statement of actuarial opinion in accordance with Section 2580.7 of this regulation more frequently than every third year. Any Category C company which fails to meet all of the following criteria for any year shall submit a statement of actuarial opinion in accordance with Section 2580.7 of this regulation for that year. The ratios in (A), (B) and (C) below shall be calculated based on amounts as of the end of the calendar year for which the actuarial opinion is applicable.
- (A) The ratio of the sum of capital and surplus to the sum of cash and invested assets is at least equal to .05.

- (B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is less than .50.
- (C) The ratio of the book value of the non-investment grade bonds to the sum of capital and surplus is less than .50.
- (D) The Examiner Team for the National Association of Insurance Commissioners (NAIC) has not designated the company as a first priority company in either of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or a second priority company in both of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or the company has resolved the first or second priority status to the satisfaction of the commissioner of the state of domicile and the commissioner has so notified the chair of the NAIC Life and Health Actuarial Task Force and the NAIC staff and support office.
- (6) Any company which is not required by this Section 2580.5 to submit a statement of actuarial opinion in accordance with Section 2580.7 of this regulation for any year shall submit a statement of actuarial opinion in accordance with Section 2580.6 of this regulation for that year unless as provided for by the second paragraph of Section 2580.2 of this regulation the Commissioner requires a statement of actuarial opinion in accordance with Section 2580.7 of this regulation.

# (d) Large Companies

Every Category D company shall submit a statement of actuarial opinion in accordance with Section 2580.7 of this regulation for each year beginning with the year in which this regulation becomes effective.

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code-

## §2580.6. Statement of Actuarial Opinion When Exempt From Section 2580.7.

#### (a) General Description

The statement of actuarial opinion required by this section shall consist of a paragraph identifying the appointed actuary and his or her qualifications; a regulatory authority paragraph stating that the company is exempt pursuant to this regulation from submitting a statement of actuarial opinion in accordance with Section 2580.7 and that the opinion is rendered in accordance with Section 2580.6 of this regulation; a scope paragraph identifying the subjects on which the opinion is to be expressed and describing the scope of the appointed actuary's work; and an opinion paragraph expressing the appointed actuary's opinion as required by Section 10489.15(b) of the California Insurance Code.

## (b) Recommended Language

The following language provided is that which in typical circumstances would be included in a statement of actuarial opinion in accordance with this section. The language may be modified as needed to meet the circumstances of a particular case, but the appointed actuary should use language which clearly expresses his or her professional judgment. However, in any event the opinion shall retain all pertinent aspects of the language provided in Section 2580.6.

- (1) The opening paragraph should indicate the appointed actuary's relationship to the company. For a company actuary, the opening paragraph of the actuarial opinion should read as follows:
  - "I, [name of actuary], am [title], of [name of company] and a member of the American Academy of Actuaries. I was appointed by, or by the authority of, the Board of Directors of said insurer to render this opinion as stated in the letter to the Commissioner dated [insert date]. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to life and health companies."

For a consulting actuary, the opening paragraph of the actuarial opinion should contain a sentence such as:

"I, [name and title of actuary], a member of the American Academy of Actuaries, am associated with the firm of [insert name of consulting firm]. I have been appointed by, or by the authority of, the

- Board of Directors of [name of company] to render this opinion as stated in the letter to the Commissioner dated [insert date]. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to life and health insurance companies."
- (2) The regulatory authority paragraph should include a statement such as the following: "Said company is exempt pursuant to Regulation [insert designation] of the [name of state] Insurance Department from submitting a statement of actuarial opinion in accordance with Section 2580.7. This opinion is rendered in accordance with Section 2580.6 of said regulation."
- (3) The scope paragraph should contain a sentence such as the following: "I have examined the actuarial assumptions and actuarial methods used in determining reserves and related actuarial items listed below, as shown in the annual statement of the company, as prepared for filing with state regulatory officials, as of December 31, []."
  - The paragraph should list items and amounts with respect to which the appointed actuary is expressing an opinion. The list should include but not be necessarily limited to:
- (A) Aggregate reserve and deposit funds for policies and contracts included in Exhibit 8;
- (B) Aggregate reserve and deposit funds for policies and contracts included in Exhibit 9;
- (C) Deposit funds, premiums, dividend and coupon accumulations and Supplementary Contracts Not Involving Life Contingencies included in Exhibit 10; and
- (D) Policy and Contract Claims Liability End of Current Year included in Exhibit 11, Part I.
- (4) If the appointed actuary has examined the underlying records, the scope paragraph should also include the following:
  - "My examination included such review of the actuarial methods and of the underlying basic records and such tests of the actuarial calculations as I considered necessary."
- (5) If the appointed actuary has not examined the underlying records, but has relied upon listings and summaries of policies in force prepared by the company or a third party, the scope paragraph should include a sentence such as one of the following:
  - "I have relied upon listings and summaries of policies and contracts and other liabilities in force prepared by [name and title of company officer certifying in force records] as certified in the attached statement. (See accompanying affidavit by a company officer.) In other respects my examination included review of the actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary."
  - "I have relied upon [name of accounting firm] for the substantial accuracy of the in force records inventory and information concerning other liabilities, as certified in the attached statement. In other respects my examination included review of the actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary."
  - The statement of the person certifying shall follow the form indicated by Subsection 2580.6(10).
- (6) The opinion paragraph should include the following:
  - "In my opinion the amounts carried in the balance sheet on account of the actuarial items identified above:
- (A) Are computed in accordance with those presently accepted actuarial standards which specifically relate to the opinion required under this section;
- (B) Are based on actuarial assumptions which produce reserves at least as great as those called for in any contract provision as to reserve basis and method, and are in accordance with all other contract provisions;
- (C) Meet the requirements of the Insurance Law and regulations of the state of [state of domicile] and are at least as great as the minimum aggregate amounts required by the state in which this statement is filed.
- (D) Are computed on the basis of assumptions consistent with those used in computing the corresponding items in the annual statement of the preceding year end with any exceptions as noted below; and
- (E) Include provision for all actuarial reserves and related statement items which ought to be established.

The actuarial methods, considerations and analyses used in forming my opinion conform to the appropriate Compliance Guidelines as promulgated by the Actuarial Standards Board, which guidelines form the basis of this statement of opinion.

- (7) The concluding paragraph should document the eligibility for the company to provide an opinion as provided by this Section 2580.6. It shall include the following:
  - "This opinion is provided in accordance with Title 10, Chapter 5, Subchapter 3, Article 17, Section 2580.6, of the California Code of Regulations.
  - Eligibility for Section 2580.6 is confirmed as follows:
- (A) The ratio of the sum of capital and surplus to the sum of cash and invested assets is [insert amount], which equals or exceeds the applicable criterion based on the admitted assets of the company (Subsection 2580.5(c)).
- (B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is [insert amount], which is less than the applicable criteria based on the admitted assets of the company (Subsection 2580.5(c)).
- (C) The ratio of the book value of the non-investment grade bonds to the sum of capital and surplus is [insert amount], which is less than the applicable criteria of .50.
- (D) To my knowledge, the NAIC Examiner Team has not designated the company as a first priority company in any of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or a second priority company in each of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable or the company has resolved the first or second priority status to the satisfaction of the commissioner of the state of domicile.
- (E) To my knowledge there is not a specific request from any Commissioner requiring an opinion in accordance with Section 2580.7.

Signature of Appointed Actuary	
Address of Appointed Actuary	

Telephone Number of Appointed Actuary"

- (8) If there has been any change in the actuarial assumptions from those previously employed, that change should be described in the annual statement or a paragraph of the statement of actuarial opinion, and the reference in Subsection 2580.6(b)(6)(D) above to consistency should read as follows: "... with the exception of the change described on Page [] of the annual statement (or in the preceding paragraph."
  - The adoption for new issues or new claims or other new liabilities of an actuarial assumption which differs from a corresponding assumption used for prior new issues or new claims or other new liabilities is not a change in actuarial assumptions within the meaning of this paragraph
- (9) If the appointed actuary is unable to form an opinion, he or she shall refuse to issue a statement of actuarial opinion. If the appointed actuary's opinion is adverse or qualified, he or she shall issue an adverse or qualified actuarial opinion explicitly stating the reason(s) for such opinion. This statement should follow the scope paragraph and precede the opinion paragraph.

(10) If the appointed actuary does not express an opinion as to the accuracy and completeness of the listings and summaries of policies in force, there should be attached to the opinion, the statement of a company officer or accounting firm who prepared such underlying data similar to the following: "I [name of officer], [title] of [name and address of company or accounting firm], hereby affirm that the listing and summaries of policies and contracts in force as of December 31, [], prepared for and submitted to [name of appointed actuary], were prepared under my direction and, to the best of my knowledge and belief, are substantially accurate and complete.

Signature of the Officer of the Company or Accounting Firm	
Address of the Officer of the Company or Accounting Firm	
Telephone Number of the Officer of the Company or Accounting Firm"	

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code-

## §2580.7<u>5</u>. Statement of Actuarial Opinion Based <del>Oon</del> an Asset Adequacy Analysis

(a) General Description.

The statement of Aactuarial Oopinion submitted in accordance with this section shall consist of:

- (1) A paragraph identifying the  $\underline{Aa}$ ppointed  $\underline{Aa}$ ctuary and his or her qualifications (see Paragraph 2580.75(b)(1));
- (2) A scope paragraph identifying the subjects on which an opinion is to be expressed and describing the scope of the <u>Aappointed Aactuary</u>'s work, including a tabulation delineating the reserves and related actuarial items <u>that which</u> have been analyzed for asset adequacy and the method of analysis, (see Paragraph 2580.75(b)(2)) and identifying the reserves and related actuarial items covered by the opinion which that have not been so analyzed;
- (3) A reliance paragraph describing those areas, if any, where the  $\underline{Aappointed}$   $\underline{Aactuary}$  has deferred to other experts in developing data, procedures or assumptions, (e.g., anticipated cash flows from currently owned assets, including variation in cash flows according to economic scenarios (see Paragraph 2580.75(b)(3)), supported by a statement of each such expert in the form prescribed by Subsection 2580.75(e); and
- (4) An opinion paragraph expressing the <u>Aappointed Aactuary's opinion</u> with respect to the adequacy of the supporting assets to mature the liabilities (see Paragraph 2580.75(b)(6)).
  - (5) One or more additional paragraphs will be needed in individual Ceompany cases as follows:
  - (A) If the Aappointed Aactuary considers it necessary to state a qualification of his or her opinion.;
  - (B) If the appointed actuary must disclose the method of aggregation for reserves of different products or lines of business for asset adequacy analysis;
  - (C) If the appointed actuary must disclose reliance upon any portion of the assets supporting the Asset Valuation Reserve (AVR), Interest Maintenance Reserve (IMR) or other mandatory or voluntary statement reserves for asset adequacy analysis.
- (D)(B) If the <u>Aa</u>ppointed <u>Aa</u>ctuary must disclose an inconsistency in the method of analysis or basis of <u>r</u>-asset allocation used at the prior opinion date with that used for this opinion.

- (E)(C) If the <u>Aa</u>ctuary must disclose whether additional reserves <u>as</u> of the prior opinion date are released as of this opinion date, and the extent of the release.
- (F)(D) If the <u>Aa</u>ppointed <u>Aa</u>ctuary chooses to add a paragraph briefly describing the assumptions which form the basis for the <u>Aa</u>ctuarial <u>Oo</u>pinion.
  - (b) Recommended Language.

The following paragraphs are to be included in the statement of <u>Aa</u>ctuarial <u>Oopinion</u> in accordance with this section. Language is that which in typical circumstances should be included in a statement of <u>Aa</u>ctuarial <u>Oopinion</u>. The language may be modified as needed to meet the circumstances of a particular case, but the <u>Aa</u>ppointed <u>Aa</u>ctuary should use language <u>which</u> that clearly expresses his or her professional judgment. However, in any event the opinion shall retain all pertinent aspects of the language provided in this section.

- (1) The opening paragraph should generally indicate the  $\underline{Aa}$ -prointed  $\underline{Aa}$ -ctuary's relationship to the  $\underline{Ce}$ -ompany and his or her qualifications to sign the opinion. For a  $\underline{Ce}$ -ompany actuary, the opening paragraph of the  $\underline{Aa}$ -ctuarial  $\underline{Oe}$ -pinion should  $\underline{read}$  include a statement such as  $\underline{follows}$ :
- "I, [name of actuary], am [title] of [insurance company name] and a member of the American Academy of Actuaries. I was appointed by, or by the authority of, the Board of Directors of said insurer to render this opinion as stated in the letter to the Commissioner dated [insert date]. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to life and health insurance companies."

For a consulting actuary, the opening paragraph should <u>include</u>contain a <u>sentence</u> statement such as: "I, [name], a member of the American Academy of Actuaries, am associated with the firm of [name of consulting firm]. I have been appointed by, or by the authority of, the Board of Directors of [name of Ceompany] to render this opinion as stated in the letter to the Commissioner dated [insert date]. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to life and health insurance companies."

(2) The scope paragraph should include a statement such as the following:

"I have examined the actuarial assumptions and actuarial methods used in determining reserves and related actuarial items listed below, as shown in the  $\underline{A}$ annual  $\underline{S}$ statement of the  $\underline{C}$ eompany, as prepared for filing with state regulatory officials, as of December 31,  $\underline{2019}[$  ]. Tabulated below are those reserves and related items which have been subjected to  $\underline{A}$ asset  $\underline{A}$ adequacy  $\underline{A}$ analysis.

Reserves and Liabilities

State	ment Item					
		Asset Adequacy Formula Reserves	Tested Amounts Additional Actuarial Reserves (a)	Analysis Method (b)	Other Amounts	Total Amount (1)+(2)+(4)
		(1)	(2)	(3)	(4)	(5)
Exhill A B C D E F G	bit 85 Life Insurance Annuities Supplementary Contracts Involving Life Contingencies Accidental Death Benefit Disability – Active Disability – Disabled Miscellaneous Total (Exhibit 85					
	Item 1, Page 3)					
Exhil <del>A</del> <del>B</del>	bit 9 <u>6</u> Active Life Reserve Claim Reserve Total (Exhibit <u>6</u> 9 Item 1, Page 3)					
Exhil	bit <del>10</del> 7					
1 1.1 1.2 1.3 2	Premiums and Other Deposit Funds (Column 5, Line 14) Policyholder Premiums (Page 3, Line 10.1) Guaranteed Interest Contracts (Page 3Column 2, Line 10.214) Other Contract Deposit Funds (Page 3Column 6, Line 10.314) SupplementarySupplemental Contracts Not Involving Life Contingencies and Annuities Certain (Page 3Column 3, Line 314) Dividends and Coupon Accumulations or Refunds (Page 3Column 4, Line 514) Total Exhibit 107 (Column 1, Line 14) bit 14 8 Part 1 Life (Page 3, Line 4.12) Health (Page 3, Line 4.12)					
	Total Exhibit 11, Part 1					
Othe	r (Specify)					
(Page Separ Colur TOT IMR Line (Separ AVR	rate Accounts 2 3 of the Annual Statement of the rate Accounts, Lines 271 and 2, mn 3) AL RESERVES (General Account, Page) arate Accounts, Page Line) (Page Line) Deferred and Uncollected Premium	(c)				=

#### Notes:

(a) The additional actuarial reserves are the reserves established under Section 2580.4(e)

(b) The <u>Aappointed Aactuary</u> should indicate the method of analysis, determined in accordance with the standards for asset analysis referred to in Section 2580.4(d) of this regulation, by means of symbols which that should be defined in <u>a</u> footnote to the table.

(c) Allocated amount <u>of Asset Valuation Reserve (AVR)</u>.

(3) If the <u>Aappointed Aactuary</u> has relied on other experts to develop certain portions of the analysis, the <u>scope reliance</u> paragraph should include a statement such as <u>the following</u>:

"I have relied on [name], [title] for [e.g., <u>"anticipated cash flows from currently owned assets, including variations in cash flows according to economic scenarios," or <del>for</del> <u>"certain critical aspects of the analysis performed in conjunction with forming my opinion"</u>] and, as certified in the attached statement,...". I have reviewed the information relied upon for reasonableness."</u>

Such a A statement of reliance on other experts should be accompanied by a statement by each of such experts  $\underline{inof}$  the form prescribed by Subsection 2580.75(e).

(4) If the <u>Aappointed Aactuary</u> has examined the underlying asset and liability records, the <u>scopereliance</u> paragraph should also include the following:

"My examination included such review of the actuarial assumptions and actuarial methods and of the underlying basic asset and liability records and such tests of the actuarial calculations as I considered necessary." I also reconciled the underlying basic asset and liability records to [exhibits and schedules listed as applicable] of the company's current annual statement."

(5) If the <u>Aa</u>ppointed <u>Aa</u>ctuary has not examined the underlying records, but has relied upon <u>data</u> (e.g., listings and summaries of policies in force and/or asset records) prepared by the <u>Ceompany or a third party</u>, the <u>scope</u>reliance paragraph should include a <u>sentence</u> statement such as:

"I have relied on listings and summaries [of policies and contracts, of asset records] prepared by [name and title of company officer certifying in force records] as certified in the attached statement. In other respects my examination included such review of the actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary."

or

"I have relied on [name of accounting firm] for the substantial accuracy of the in-force records inventory and information concerning other liabilities, as certified in the attached statement. In other respects my examination included review of the actuarial assumptions and actuarial methods and tests of the actuarial calculations as I considered necessary."

In forming my opinion on [specify types of reserves] I relied upon data prepared by [name and title of company officer certifying in force records or other data] as certified in the attached statements. I evaluated that data for reasonableness and consistency. I also reconciled that data to [exhibits and schedules to be listed as applicable] of the company's current annual statement. In other respects, my examination included review of the actuarial assumptions and actuarial methods used, and included such tests of the calculations as I considered necessary."

<u>The Such a section must be accompanied by a statement by each person relied upon of in the form prescribed by Subsection 2580.75(e).</u>

(6) The opinion paragraph should include the following:

"In my opinion the reserves and related actuarial values concerning the statement items identified above:

- (A) Are computed in accordance with presently accepted actuarial standards consistently applied and are fairly stated, in accordance with sound actuarial principles;
- (B) Are based on actuarial assumptions which that produce reserves at least as great as those called for in any contract provision as to reserve basis and method, and are in accordance with all other contract provisions;
- (C) Meet the requirements of the Insurance Law and regulation of the state of [state of domicile] and are at least as great as the minimum aggregate amounts required by the state in which this statement is filed.;

- (D) Are computed on the basis of assumptions consistent with those used in computing the corresponding items in the  $\underline{Aannual}$   $\underline{Sannual}$  statement of the preceding year-end (with any exceptions noted below); and
- (E) Include provision for all actuarial reserves and related statement items which ought to be established.
- 1. The reserves and related items, when considered in light of the assets held by the Ceompany with respect to such reserves and related actuarial items including, but not limited to, the investment earnings on such the assets, and the considerations anticipated to be received and retained under such the policies and contracts, make adequate provision, according to presently accepted actuarial standards of practice, for the anticipated cash flows required by the contractual obligations and related expenses of the company. (At the discretion of the Commissioner, the preceding sentence may be omitted for an opinion filed on behalf of a domestic Company doing business only in this state and in no other state.)
- <u>2.</u> The actuarial methods, considerations and analyses used in forming my opinion conform to the appropriate Standards of Practice as promulgated by the Actuarial Standards Board, which standards form the basis of this statement of opinion.
- 3.(i) This opinion is updated annually as required by statute. To the best of my knowledge, there have been no material changes from the applicable date of the annual statement to the date of the rendering of this opinion which should be considered in reviewing this opinion.

OR

(ii) The following material change(s) which occurred between the date of the statement for which this opinion is applicable and the date of this opinion should be considered in reviewing this opinion: (Describe the change or changes.)

Note: Choose one of the Subitem (i) or Subitem (ii) above two paragraphs, whichever is applicable.

<u>4.</u> The impact of unanticipated events subsequent to the date of this opinion is beyond the scope of this opinion. The analysis of asset adequacy portion of this opinion should be viewed recognizing that the company's future experience may not follow all the assumptions used in the analysis.

Signature of Appointed Actuary	
Address of Appointed Actuary	
Telephone Number of Appointed Actuary—	
E-mail Address of Appointed Actuary	
Date"	

(c) Assumptions for New Issues.

The adoption for new issues or new claims or other new liabilities of an actuarial assumption  $\frac{\text{that}}{\text{that}}$  differs from a corresponding assumption used for prior new issues or new claims or other new liabilities is not a change in actuarial assumptions within the meaning of this Section 2580.75.

## (d) Adverse Opinions.

If the <u>Aappointed Aactuary</u> is unable to form an opinion, then he or she shall refuse to issue a statement of <u>Aactuarial Oopinion</u>. If the <u>Aappointed Aactuary</u>'s opinion is adverse or qualified, then he or she shall issue an adverse or qualified <u>Aactuarial Oopinion explicitly stating the reason(s) for the such opinion.</u>

This statement should follow the scope paragraph and precede the opinion paragraph.

(e) Reliance on Data Information Furnished by Other Persons.

If the appointed actuary does not express an opinion as to the accuracy and completeness of the listings and summaries of policies in force and/or asset oriented information, there shall be attached to the opinion the statement of a company officer or accounting firm who prepared such underlying data similar to the following:

"I [name of officer], [title], of [name of company or accounting firm], hereby affirm that the listings and summaries of policies and contracts in force as of December 31, 19[], and other liabilities prepared for and submitted to [name of appointed actuary] were prepared under my direction and, to the best of my knowledge and belief, are substantially accurate and complete.

Signature of the Officer of the Company or Accounting Firm	
Address of the Officer of the Company or Accounting Firm	
Telephone Number of the Officer of the Company or Accounting Firm"	

## AND/OR

"I, [name of officer], [title] of [name of company, accounting firm, or security analyst], hereby affirm that the listings, summaries and analyses relating to data prepared for and submitted to [name of appointed actuary] in support of the asset oriented aspects of the opinion were prepared under my direction and, to the best of my knowledge and belief, are substantially accurate and complete.

Signature of the Officer of the Company, Accounting Firm or the Security Analyst	
Address of the Officer of the Company, Accounting Firm or the Security Analyst	
Talanhona Number of the Officer of the Company	

Telephone Number of the Officer of the Company, Accounting Firm or the Security Analyst"

If the Appointed Actuary relies on the certification of others on matters concerning the accuracy or completeness of any data underlying the Actuarial Opinion, or the appropriateness of any other

information used by the Appointed Actuary in forming the Actuarial Opinion, the Actuarial Opinion should so indicate the persons the actuary is relying upon and a precise identification of the items subject to reliance. In addition, the persons on whom the Appointed Actuary relies shall provide a certification that precisely identifies the items on which the person is providing information and a statement as to the accuracy, completeness or reasonableness, as applicable, of the items. This certification shall include the signature, title, company, address, e-mail address and telephone number of the person rendering the certification, as well as the date on which it is signed.

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code.

# §2580.86 Description of Actuarial Memorandum Including an Asset Adequacy Analysis and Regulatory Asset Adequacy Issues Summary.

- (a) General
- (1) In accordance with Section 10489.15(b) of the Insurance Code, the <u>Aappointed Aactuary</u> shall prepare a memorandum to the <u>Ceompany</u> describing the analysis done in support of his or her opinion regarding the reserves under a <u>Section 2580.7 opinion</u>. The memorandum shall be made available for examination by the Commissioner upon his or her request but shall be returned to the <u>Ceompany</u> after such examination and shall not <u>be</u> considered a record of the insurance department or subject to automatic filing with the Commissioner.
- (2) In preparing the memorandum, the <u>Aappointed Aactuary</u> may rely on, and include as a part of his or her own memorandum, memoranda prepared and signed by other actuaries who are qualified within the meaning of Section 2580.4(b) of this regulation, with respect to the areas covered in such memoranda, and so state in their memoranda.
- (3) If the Commissioner requests a memorandum and no such memorandum is received within 60 calendar days of the date of mailing the request, or if the Commissioner finds that the analysis described in the memorandum fails to meet the standards of the Actuarial Standards Board or the standards and requirements of this regulation, the Commissioner may designate a Qqualified Aactuary to review the opinion and prepare such supporting memorandum as is required for review. The reasonable and necessary expense of such independent review shall be paid by the Ceompany but shall be directed and controlled by the Commissioner.
- (4) The reviewing actuary shall have the same status as an examiner for purposes of obtaining data from the Ceompany and the work papers and documentation of such reviewing actuary shall be retained by the Commissioner; provided, however, that any information provided by the Ceompany to such reviewing actuary and included in the work papers shall be considered as material provided by the Ceompany to the Commissioner and shall be kept confidential to the same extent as is prescribed by law with respect to other material provided by the Ceompany to the Commissioner pursuant to the statute governing this regulation. The reviewing actuary shall not be an employee of a consulting firm involved with the preparation of any prior memorandum or opinion for the insurer pursuant to this regulation for any one of the current year or the preceding three years.
- (5) In accordance with Section 10489.15 of the Insurance Code, the Appointed Actuary shall prepare a regulatory asset adequacy issues summary, the contents of which are specified in Subsection 2580.6(c). The regulatory asset adequacy issues summary will be submitted no later than March 15 of the year following the year for which a statement of Actuarial Opinion based on asset adequacy is required. The regulatory asset adequacy issues summary is to be kept confidential to the same extent and under the same conditions as the actuarial memorandum.
- (b) Details of the Memorandum Section Documenting Asset Adequacy Analysis. (Section 2580.7) When an  $\underline{Aactuarial\ \underline{Oe}}$  pinion under Section 2580.75 is provided, the memorandum shall demonstrate that the analysis has been done in accordance with the standards for  $\underline{Aactuarial\ \underline{Aactuarial\ \underline{Aactuarial\$

to in Subsection 2580.4(d) of this regulation and any additional standards under this regulation. It shall specify:

- (1) For reserves:
- (A) Product descriptions including market description, underwriting and other aspects of a risk profile and the specific risks the <u>Aappointed Aactuary</u> deems significant;
  - (B) Source of liability in force;
  - (C) Reserve method and basis;
  - (D) Investment reserves:
  - (E) Reinsurance arrangements.;
- (F) Identification of any explicit or implied guarantees made by the general account in support of benefits provided through a separate account or under a separate account policy or contract and the methods used by the Appointed Actuary to provide for the guarantees in the Asset Adequacy Analysis; and
  - (G) Documentation of assumptions to test reserves for the following:
  - 1. Lapse rates (both base and excess);
  - 2. Interest crediting rate strategy;
  - 3. Mortality;
  - 4. Policyholder dividend strategy;
  - 5. Competitor or market interest rate;
  - 6. Annuitization rates;
  - 7. Commissions and expenses; and
  - 8. Morbidity.

The documentation of the assumptions shall be such that an actuary reviewing the actuarial memorandum could form a conclusion as to the reasonableness of the assumptions.

- (2) For assets:
- (A) Portfolio descriptions, including a risk profile disclosing the quality, distribution and types of assets:
- (B) Investment and disinvestment assumptions;
- (C) Source of asset data;
- (D) Asset valuation bases-; and
- (E) Documentation of assumptions made for:
- 1. Default costs;
- 2. Bond call function;
- 3. Mortgage prepayment function;
- 4. Determining market value for assets sold due to disinvestment strategy; and
- 5. Determining yield on assets acquired through the investment strategy.

The documentation of the assumptions shall be such that an actuary reviewing the actuarial memorandum could form a conclusion as to the reasonableness of the assumptions.

- (3) For the Aanalysis basis:
- (A) Methodology;
- (B) Rationale for inclusion <u>or</u>/exclusion of different blocks of business and how pertinent risks were analyzed;
- (C) Rationale for degree of rigor in analyzing different blocks of business (include in the rationale the level of "materiality" that was used in determining how rigorously to analyze different blocks of business);
- (D) Criteria for determining asset adequacy (<u>include in the criteria the precise basis for determining if assets are adequate to cover reserves under "moderately adverse conditions" or other conditions as specified in relevant Actuarial Standards of Practice); and</u>

- (E) Effect of federal income taxes, reinsurance and other relevant factors. Whether the impact of federal income taxes was considered and the method of treating reinsurance in the Asset Adequacy Analysis;
- (4) Summary of Results Summary of material changes in methods, procedures, or assumptions from prior year's Asset Adequacy Analysis;
  - (5) Conclusion(s) Summary of results; and
  - (6) Conclusions.
  - (c) Details of the Regulatory Asset Adequacy Issues Summary.
  - (1) The regulatory asset adequacy issues summary shall include:
- (A) Descriptions of the scenarios tested (including whether those scenarios are stochastic or deterministic) and the sensitivity testing done relative to those scenarios. If aggregate negative ending surplus results under certain tests, the actuary should describe those tests and the amount of additional reserve as of the valuation date which, if held, would eliminate the negative aggregate surplus values. Ending surplus values shall be determined by either extending the projection period until the in force and associated assets and liabilities at the end of the projection period are immaterial or by adjusting the surplus amount at the end of the projection period by an amount reflecting an appropriate estimate of the value that can reasonably be expected to arise from the assets and liabilities remaining in force.
- (B) The extent to which the Appointed Actuary uses assumptions in the Asset Adequacy Analysis that are materially different from the assumptions used in the previous Asset Adequacy Analysis;
- (C) The amount of reserves and the identity of the product lines that had been subjected to Asset Adequacy Analysis in the prior opinion but were not subject to analysis for the current opinion;
  - (D) Comments on any interim results that may be of significant concern to the Appointed Actuary;
- (E) The methods used by the actuary to recognize the impact of reinsurance on the Company's cash flows, including both assets and liabilities, under each of the scenarios tested;
- (F) Whether the actuary has been satisfied that all options, whether explicit or embedded, in any asset or liability (including but not limited to those affecting cash flows embedded in fixed income securities) and equity-like features in any investments have been appropriately considered in the Asset Adequacy Analysis; and
  - (G) Any other items that the Commissioner may request.
- (2) The regulatory asset adequacy issues summary shall contain the name of the Company for which the regulatory asset adequacy issues summary is being supplied and shall be signed and dated by the Appointed Actuary rendering the Actuarial Opinion.

(d)(e)Conformity to Standards of Practice.

The memorandum shall include a statement:

"Actuarial methods, considerations and analyses used in the preparation of this memorandum conform to the appropriate Standards of Practice as promulgated by the Actuarial Standards Board, which standards form the basis for this memorandum."

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code-

## §2580.9. Additional Considerations for Analysis.

#### (a) Aggregation

For the asset adequacy analysis for the statement of actuarial opinion provided in accordance with Section 2580.7 of this regulation, reserves and assets may be aggregated by either of the following methods:

(1) Aggregate the reserves and related actuarial items, and the supporting assets, for different products or lines of business, before analyzing the adequacy of the combined assets to mature the combined liabilities. The appointed actuary must be satisfied that the assets held in support of the reserves and related actuarial items so aggregated are managed in such a manner that the cash flows from such

- aggregated assets are available to help mature the liabilities from the blocks of business that have been aggregated.
- (2) Aggregate the results of asset adequacy analysis of one or more products or lines of business, the reserves for which prove through analysis to be redundant, with the results of one or more products or lines of business, the reserves for which prove through analysis to be deficient. The appointed actuary must be satisfied that the asset adequacy results for the various products or lines of business for which the results are so aggregated:
- (A) Are developed using consistent economic scenarios, or
- (B) Are subject to mutually independent risks, i.e., the likelihood of events impacting the adequacy of the assets supporting the redundant reserves is completely unrelated to the likelihood of events impacting the adequacy of the assets supporting the deficient reserves.

In the event of any aggregation, the actuary must disclose in his or her opinion that such reserves were aggregated on the basis of method (1), (2)(A) or 2(B) above, whichever is applicable, and describe such aggregation in the supporting memorandum.

(b) Selection of Assets for Analysis

The appointed actuary shall analyze only those assets held in support of the reserves which are the subject to specific analysis, hereafter called "specified reserves." A particular asset or portion thereof supporting a group of specified reserves cannot support any other group of specified reserves. An asset may be allocated over several groups of specified reserves. The annual statement value of the assets held in support of the reserves shall not exceed the annual statement value of the specified reserves, except as provided in Subsection (c) below. If the method of asset allocation is not consistent from year to year, the extent of its inconsistency should be described in the supporting memorandum.

(e)(e) Use of Assets Supporting the Interest Maintenance Reserve and the Asset Valuation Reserve.

An appropriate allocation of assets in the amount of the Interest Maintenance Reserve (IMR), whether positive or negative, must be used in any <u>Aasset Aadequacy Aanalysis</u>. Analysis of risks regarding asset default may include an appropriate allocation of assets supporting the Asset Valuation Reserve (AVR); these AVR assets may not be applied for any other risks with respect to reserve adequacy. Analysis of these and other risks may include assets supporting other mandatory or voluntary reserves available to the extent not used for risk analysis and reserve support.

The amount of the assets used for the AVR must be disclosed in the Table of Reserves and Liabilities of the opinion and in the memorandum. The method used for selecting particular assets or allocated portions of assets must be disclosed in the memorandum.

- (d) Required Interest Rate Scenarios
  - For the purpose of performing the asset adequacy analysis required by this regulation, the qualified actuary is expected to follow standards adopted by the Actuarial Standards Board; nevertheless, the appointed actuary must consider in the analysis the effect of at least the following interest rate scenarios:
- (1) Level with no deviation;
- (2) Uniformly increasing over ten (10) years at a half percent per year and then level;
- (3) Uniformly increasing at one percent (1%) per year over five (5) years and then uniformly decreasing at one percent (1%) per year to the original level at the end of ten (10) years and then level;
- (4) An immediate increase of three percent (3%) and then level;
- (5) Uniformly decreasing over ten (10) years at a half percent per year and then level;
- (6) Uniformly decreasing at one percent (1%) per year over five (5) years and then uniformly increasing at one percent (1%) per year to the original level at the end of ten (10) years and then level; and
- (7) An immediate decrease of three percent (3%) and then level.
  - For these and other scenarios which may be used, projected interest rate for a five (5) year Treasury Note need not be reduced beyond the point where such five (5) year Treasury Note yield would be at fifty percent (50%) of its initial level.

The beginning interest rates may be based on interest rates for new investments as of the valuation date similar to recent investments allocated to support the product being tested or be based on an outside index, such as Treasury yields, of assets of the appropriate length on a date close to the valuation date. Whatever method is used to determine the beginning yield curve and associated interest rates should be specifically defined. The beginning yield curve and associated interest rates should be specifically defined. The beginning yield curve and associated interest rates should be consistent for all interest rate scenarios.

## (f) (e) Documentation.

The <u>Aappointed Aactuary</u> shall retain on file, for at least seven years, sufficient documentation so that it will be possible to determine the procedures followed, the analyses performed, the bases for assumptions and the results obtained.

NOTE: Authority cited: Section 10489.15, Insurance Code. Reference: Section 10489.15, Insurance Code.